

NOTES:

GF- GOVERNMENT FURNISHED MATERIAL, CF-CONTRACTOR FURNISHED MATERIAL, AHU- AIR HANDLING UNIT, CF&I-CONTRACTOR FURNISHED & INSTALLED, RA-RETURN AIR, SA-SUPPLY AIR
QUANTITIES AND DIMENSIONS LISTED ARE FOR ESTIMATING PURPOSES ONLY, CONTRACTOR SHOULD VERIFY PRIOR TO ORDERING

1. THE CONTRACTOR SHALL TIE NEW AHU'S INTO EXISTING RA DUCT WORK. THE CONTRACTOR WILL BE REQUIRED TO REPLACE FLEXIBLE DUCT CONNECTION, ONLY IF EXISTING CONNECTIONS ARE DAMAGED DURING NEW AHU INSTALLATION.

2. THE CONTRACTOR SHALL TIE EXISTING REFRIGERANT PIPING INTO NEW CF&I AHUs. BECAUSE NEW UNITS WILL BE IDENTICAL TO EXISTING. IT IS EXPECTED THAT ONLY A SMALL AMOUNT OF NEW COPPER TUBING WILL BE REQUIRED TO COMPLETE AHU REFRIGERANT PIPING TIE-IN. ANY NEW TUBING THAT IS REQUIRED WILL BE SUPPLIED BY THE CONTRACTOR. FOR ESTIMATING PURPOSES, TIE-IN SHOULD REQUIRE LESS THAN 1' OF COPPER TUBING AND A PIPE COUPLING.

3. THE CONTRACTOR SHALL PROVIDE AND INSTALL THREE (3) EA. TRANE (AMERICAN STANDARD) AIR HANDLING UNITS. THE UNITS SHALL BE AS FOLLOWS: 5 TON, SNGL CIRCUIT, AND USE R-410A REFRIGERANT. THE UNITS SHALL BE 3 PHASE, 480 VOLT; AND HAVE MODEL# TWE061D400A (NOTE: PRIOR TO PURCHASING THE AHUs THE CONTRACTOR SHALL VERIFY THAT THE UNIT W/ THE ABOVE LISTED MODEL# MATCHES ALL DIMENSIONS AND ELECTRICAL/PIPING REQUIREMENTS AS THE EXISTING AHUs). THERE SHALL BE NO DEVIATION FROM THIS REQUIREMENT.

THE AHUs THAT REQUIRE REPLACEMENT ARE LABELED: AHU-1B, AHU-3B AND AHU-2B

4. THE CONTRACTOR SHALL INSTALL NEW CF AHUs IN THE SAME LOCATIONS AS THE EXISTING AHUs.

5. THE CONTRACTOR SHALL PROVIDE AND INSTALL THREE (3) EA. TRANE (AMERICAN STANDARD) CONDENSING UNITS. THE UNITS SHALL BE AS FOLLOWS: 5 TON, SNGL CIRCUIT, AND USE R-410A REFRIGERANT. THE UNITS SHALL BE 3 PHASE, 480 VOLT; AND HAVE MODEL# 4TTA3060D4000C (NOTE: PRIOR TO PURCHASING THE CONDENSERS THE CONTRACTOR SHALL VERIFY THAT THE UNITS W/ THE ABOVE LISTED MODEL# MATCHES ALL DIMENSIONS AND ELECTRICAL/PIPING REQUIREMENTS AS THE EXISTING CONDENSING UNITS). THERE SHALL BE NO DEVIATION FROM THIS REQUIREMENT.

THE CONDENSING UNITS THAT REQUIRE REPLACEMENT ARE LABELED: ACCU-1B, ACCU-3B AND ACCU-2B

6. THE CONTRACTOR SHALL LEAVE ALL STEEL CONDUIT IN PLACE FOR REUSE. STEEL CONDUIT IS INSTALLED ON ALL DISCONNECT SWITCHES (FOR POWER CABLES) AND ON EXTERIOR "LBs" (FOR CONTROL CABLES). NOTE: FLEXIBLE LIQUID TIGHT CONDUIT IS INSTALLED BETWEEN THE STEEL CONDUIT AND THE CONDENSING UNITS. THE CONTRACTOR SHALL BE REQUIRED TO REPLACE ALL LIQUID TIGHT CONDUIT. ALL EXISTING CONTROL AND POWER CABLE SHALL BE REUSED.

7. THE CONTRACTOR SHALL REPLACE ALL EXTERIOR LIQUID TIGHT CONDUIT, WHICH IS INSTALLED BETWEEN STEEL CONDUIT AND EACH CONDENSING UNIT. FOR ESTIMATING PURPOSES THE CONTRACTOR WILL REPLACE APPROXIMATELY 75' OF LIQUID TIGHT. THE CONTRACTOR SHALL ALSO REPLACE ALL ASSOCIATED LIQUID TIGHT BOX CONNECTOR. THERE ARE APPROXIMATELY 16 BOX CONNECTORS. THE CONNECTORS SHALL HAVE ACCOMPANYING LOCK WASHER, GROUNDING BUSHINGS

8. THE CONTRACTOR SHALL PURCHASE AND INSTALL A 10Kw ELECTRIC HEATER FOR EACH AHU.

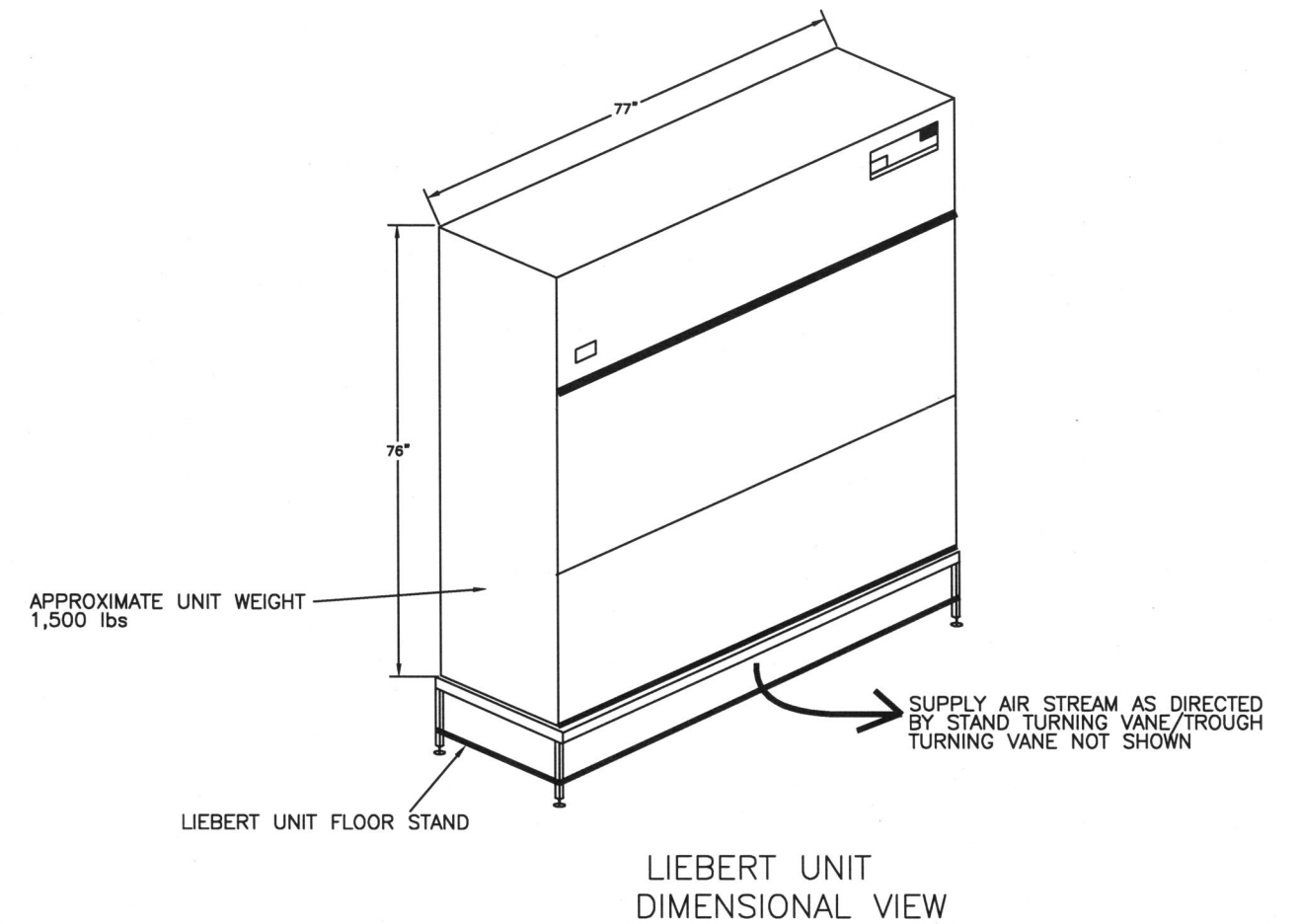
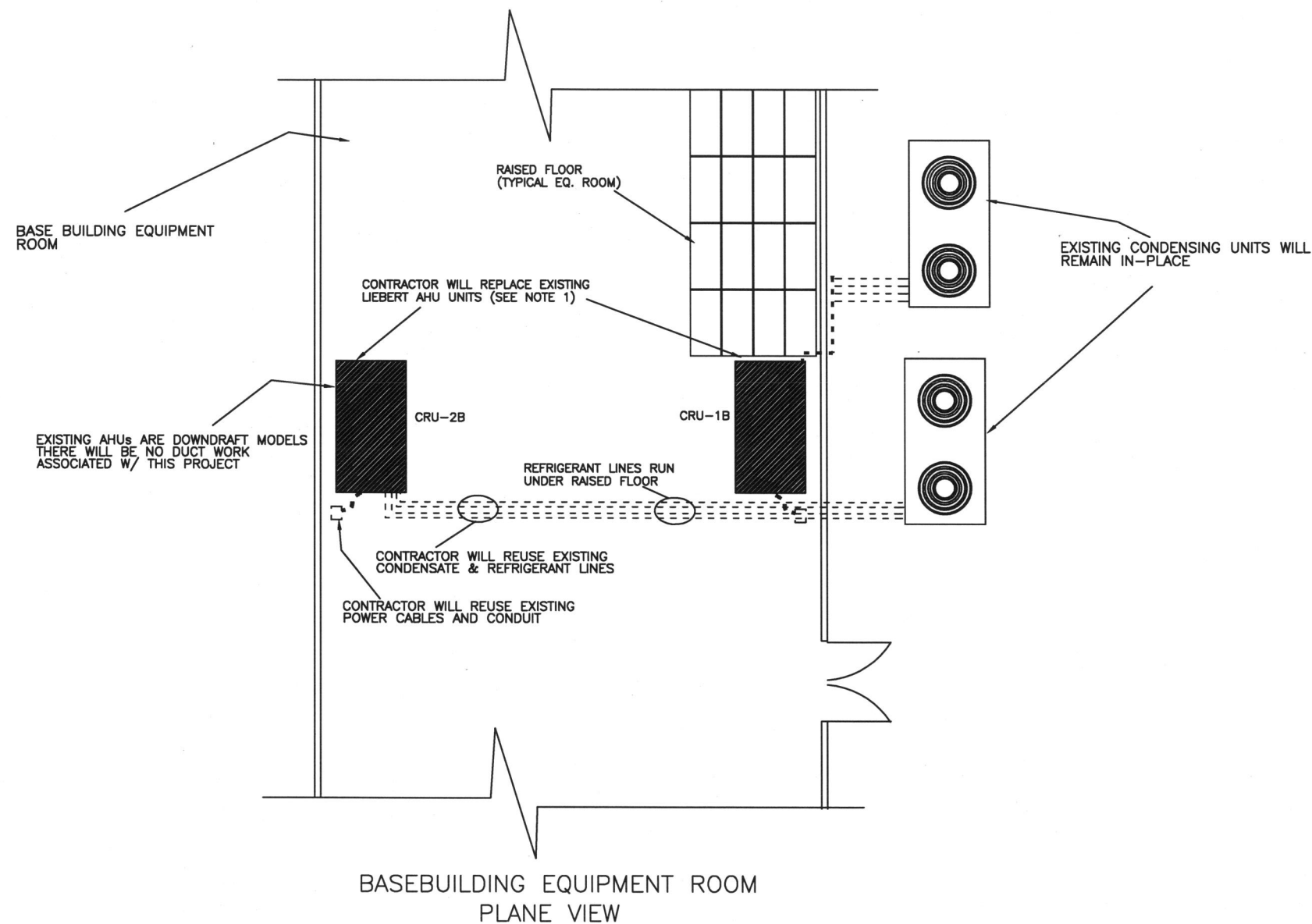
9. THE CONTRACTOR SHALL PROVIDE A PORTABLE AIR CONDITIONER TO CONDITION EACH ZONE WHERE THE EXISTING UNITS HAVE BEEN REMOVED. THE CONTRACTOR CAN FIGURE 2 PORTABLES PER ZONE.

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

HUB ATCT BASEBUILDING HVAC
REPLACEMENT PROJECT

KENNETH GRAVES, HOU TSC
DATE: 7/9/12

SHEET 1 OF 2



NOTES:

GF- GOVERNMENT FURNISHED MATERIAL, CF-CONTRACTOR FURNISHED MATERIAL, AHU- AIR HANDLING UNIT, CF&I-CONTRACTOR FURNISHED & INSTALLED, RA-RETURN AIR, SA-SUPPLY AIR
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1. THE CONTRACTOR SHALL REPLACE TWO (2) EXISTING LIEBERT AHUs. WITH NEW LIEBERT UNITS. THE NEW UNITS WILL BE CONTRACTOR FURNISHED AND HAVE THE FOLLOWING LIEBERT MODEL NUMBER- DSO35ASAOE1226B. THE UNITS WILL BE 460 VOLTS 60 HZ, 3 PHASE, 10 NOMINAL TONS, AIR COOLED. THE EXISTING UNITS ARE MOUNTED ON 18" FLOORSTANDS. THE CONTRACTOR SHALL PURCHASE NEW FLOORSTANDS AND TURNING VANE TROUGHs FOR NEW AHUs.

NOTE: IN ADDITION TO PROVIDING THE UNITS, THE CONTRACTOR SHALL PURCHASE SUPPLY AIR TURNING VANE TROUGHs, WHICH ARE TO BE MOUNTED TO THE AHU'S FLOORSTAND.

SEE SPECIFICATION FOR ADDITIONAL INFORMATION ON AHUs.

2. THE CONTRACTOR SHALL INSTALL NEW CF AHU IN APPROXIMATELY THE SAME LOCATIONS AS THE EXISTING UNITS. THE NEW UNITS WILL BE MOUNTED ON FLOORSTANDS (PROVIDED BY THE CONTRACTOR VIA LIEBERT PURCHASE).

3. THE CONTRACTOR SHALL TIE EXISTING REFRIGERANT PIPING INTO NEW CF&I AHUs. BECAUSE NEW UNITS ARE MOSTLY IDENTICAL TO EXISTING. IT IS EXPECTED THAT ONLY A SMALL AMOUNT OF NEW COPPER TUBING WILL BE REQUIRED TO COMPLETE AHU REFRIGERANT PIPING TIE-IN. ANY NEW TUBING THAT IS REQUIRED WILL BE SUPPLIED BY THE CONTRACTOR.

4. A PORTABLE AIR CONDITIONER WILL NOT BE REQUIRED FOR WORK CONDUCTED IN BASE BUILDING EQUIPMENT ROOM. THE CONTRACTOR WILL ONLY BE ALLOWED TO WORK ON ONE UNIT AT A TIME. ONE NEWLY INSTALLED SYSTEM WILL HAVE TO BE FULLY OPERATIONAL BEFORE THE 2nd SYSTEM CAN BE WORKED.

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

HUB ATCT BASEBUILDING HVAC
REPLACEMENT PROJECT
BASEBUILDING EQ. ROOM

KENNETH GRAVES, HOU TSC
DATE: 7/9/12

SHEET 2 OF 2